REMARKS

The following is intended as a full and complete response to the Decision on Appeal from the Board of Patent Appeals and Interferences, dated September 28, 2009, the Advisory Action, dated October 26, 2005, and the Final Office Action, dated July 25, 2005. In the Final Office Action, the Examiner rejected claims 1-3, 5, 7-14, 16, 18-22 under 35 U.S.C. §103(a) as being unpatentable over Merrill (U.S. Pub. 2002/0008703). In the Decision on Appeal, the Board did not reach the merits of the Examiner's §103(a) rejections and rejected all of the pending claims under 35 U.S.C. §101 as being directed to non-statutory subject matter. The rejections are respectfully traversed.

The Board decision includes new grounds of rejection. In response, Applicants hereby elect to reopen prosecution pursuant to 37 C.F.R. 41.50(b)(1).

<u>Rejections under §101 – Method Claims</u>

In the Decision on Appeal, the Board rejected the method claims as being directed to non-statutory subject matter. In response, claim 1 is amended to recite the limitations of generating a frame within an animation by altering state information corresponding to each graphical component in a set of graphical components. Claim 1 is further amended to recite the limitations of displaying the frame on a display device or storing the frame in a memory.

Applicants submit, based on these amendments, that amended claim 1 now satisfies the requirements of §101.

First, amended claim 1 is now tied to a particular machine. More specifically, particular hardware elements, such as a display device and a memory are now recited in amended claim 1. These particular hardware elements make clear that the method is directed towards and involves a CAD application executing on a computer system, as also recited in amended claim 1.

Second, the step of generating a frame within an animation by altering state information corresponding to each graphical component in a set of graphical components, as recited in amended claim 1, now properly falls within the scope of §101. The Board pointed out that claim 1, as it appeared on appeal, recited the limitations of altering state information <u>to</u> generate a frame. According to the Board, "[t]his limitation's

term 'to' indicates that claim 1 does not necessarily encompass the final act of generating a physical animation frame" (see Board Decision at page 9). This limitation has been rewritten so that the "generating" step is an active step recited in the method, in compliance with §101.

Third, the claim recites a statutory "transformation of data." The Federal Circuit, in *Bilski*, explained that transformation of data is sufficient to render a process patent-eligible if the data represents physical and tangible objects, i.e., transformation of such raw data into a particular visual depiction of a physical object on a display. *In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008) (en banc). As amended, claim 1 is directed towards a statutory transformation by reciting the limitations of displaying the frame on a display device or storing the frame in a memory. The frame comprises data that represents underlying objects (i.e., the set of graphical components) that are both physical and tangible. These features of amended claim 1 meet the "transformation branch" of the machine-or-transformation test, as outlined in *Bilski*.

Tying the method to specific hardware and directing the method to a transformation of data puts amended claim 1 in compliance with recent Federal Circuit case law and Board of Patent Appeals decisions. Thus, amended claim 1, and the claims dependent thereon, are directed to patentable subject matter as defined by §101.

In addition, method claim 8 is amended to recite limitations similar to claim 1. Therefore, claim 8 and the claims dependent thereon satisfy the requirements of §101 for at least the same reasons as claim 1.

<div align="center">Rejections under §101 – CRM Claims</div>

The Board also rejected the computer-readable medium claims under §101 as being directed to non-statutory subject matter. In response, claims 12 and 18 are amended to recite a computer-readable storage medium storing one or more sequences of one or more instructions that, when executed by one or more processors, cause a computer system to execute an operation on a set of graphical components by performing various steps. Claims having this construction, so-called "Beauregard claims," fall within the definition of patentable subject matter under §101, according to

the Federal Circuit and recent Board of Appeals decisions subsequent to the *Bilski* decision.

In *Ex Parte Bo Li* (Appeal No. 2008-1213, decided on November 6, 2008), the Board of Patent Appeals and Interferences endorsed Beauregard claims, such as amended claims 12 and 18. The Board stated that "[i]n the analysis of *In re Nuijten*, 500 F.3d 1346 (Fed. Cir., 2007), the Federal Circuit considers the four statutory classes … and bases the determination of statutory subject matter on that basis … [i]t has been the practice for a number of years that a 'Beauregard Claim' of this nature be considered statutory at the USPTO as a product claim (MPEP 2105.01, I) … [i]n view of the totality of these precedents, we decline to support the rejection under 35 U.S.C. §101" (*Ex Parte Bo Li* at page 9). Thus, the Board has specifically found that claims directed towards a "computer-readable <u>storage</u> medium" satisfied §101 requirements.

In addition, the claimed computer-readable storage medium falls squarely within the "New Interim Patent Subject Matter Eligibility Examination Instructions" issued in a memorandum by Andrew H. Hirshfeld, Acting Deputy Commissioner for Patent Examination Policy, on August 24, 2009 (available at http://www.uspto.gov/web/offices/ pac/dapp/opla/2009-08-25_interim_101_instructions.pdf). The guidelines present a flow diagram representing a procedure for determining patent eligibility of any claim under §101. Based on these guidelines, claims 12 and 18 recite eligible subject matter since the claims are directed to an article of manufacture (i.e., the "computer-readable storage medium") and the claim does not recite a judicial exception that precludes eligibility.

Moreover, the claims are not directed to substantially all practical applications of the algorithm since there are other substantial uses of the algorithm other than using the claim to generate a frame within an animation. As there are other ways to use the algorithm, for example, with different programmed steps, not every conceivable use is covered by the claim. See the example given on page 21 of the guidelines (i.e., "slide 10" of the presentation included in the guidelines found at the link above).

Lastly, Applicants presently amend the specification to remove signal-bearing media from the definition of computer-readable storage medium.

For all of these reasons, Applicants respectfully request withdrawal of the §101 rejections of claims 12 and 18 and the claims dependent thereon.

<div align="center">Rejections under §103(a)</div>

The Examiner rejected the claims under §103(a) as being unpatentable over Merrill. Claim 1 is amended to recite the limitations of identifying a set of graphical components associated with identifiers that satisfy pattern matching criteria, where the set of graphical components includes <u>at least two</u> graphical components. Claim 1 is further amended to recite the limitations of performing an operation on an attribute of each graphical component in the set of graphical components that satisfy the pattern matching criteria. Support for these limitations can be found at, among other places, pages 12-14 of the present application. Merrill fails to teach or suggest these limitations.

Merrill discloses a Visual Basic programming environment that uses OLE (Object Linking and Embedding) control as an interface. The Examiner specifically points to paragraph [0326] of Merrill that recites a command in a script that states: "agent.object.Property=value," which specifies that the term "value" is set as the amount of the parameter "Property" of the object "agent.object". The Examiner equates this conventional Visual Basic command in Merrill as disclosing the claimed limitations of performing the operation on an attribute of a graphical component that satisfies the pattern matching criteria. In the Final Office Action dated July 25, 2005, the Examiner states that the "citation in Merrill's disclosure corresponding to the claim feature ... is interpreted as having <u>one object</u> identified as associated with identifiers out of all possible objects" (Final Office Action at page 3) (emphasis added).

However, Merrill fails to teach or suggest the limitations of identifying a set of graphical components associated with identifiers that satisfy pattern matching criteria, where the set of graphical components includes <u>at least two</u> graphical components, as recited in amended claim 1. As explicitly stated by the Examiner, Merrill discloses that a property of a <u>one object</u> can be modified. As is understood by persons having ordinary skill in the art, conventional programming languages, such as Visual Basic, allow a programmer to set the value of a single variable or parameter per command. In
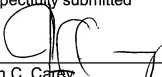
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contrast, the claimed technique allows an operation to be performed on each graphical component included in the set of graphical components, where the set includes at least two graphical components. Thus, the claimed technique allows for an operation to be performed on multiple objects using a single command, thereby providing the non-obvious advantage of making programming of adjustments to the CAD model easier for the developer.

As the foregoing illustrates, Merrill fails to teach or suggest each and every limitation of amended claim 1. Therefore, Merrill cannot render claim 1 obvious. For these reasons, Applicant respectfully submits that claim 1 is allowable and requests allowance of the claim. Furthermore, independent claims 8, 12, and 18 are amended to recite limitations similar to those of claim 1 and are therefore allowable for at least the same reasons as claim 1. The remaining claims depend from allowable claims 1, 8, 12, and 18, and are, therefore, also in condition for allowance.

CONCLUSION

Based on the above remarks, Applicants believe that they have overcome all of the rejections set forth in the Final Office Action mailed July 25, 2005 and the Decision on Appeal dated September 28, 2009, and that the pending claims are in condition for allowance. If the Examiner has any questions, please contact the Applicant's undersigned representative at the number provided below.

Respectfully submitted

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